

CLAIMS

I claim:

MRD 1. A device for shoring trenches comprising:

10 a) at least four rail posts, said linear rail posts, spaced a part along the trench en pairs and symmetrically on either side of the trench; each rail post having laterally on either side a channel of stepped cross section shaping two or more steps each of them making up a vertical guide completely or partially open.

15 b) at least four large shoring panels, each of them sliding between adjacent rail posts creating on either side of the trench a multi-step shoring wall of two or more steps; each panel having laterally on either side a vertical guide channel and/or magnetic flat bars for the connection with the rail post.

20 c) at least two articulated trusses sliding formlocking along opposite rail posts; each truss been of scissoring type and composed uniquely by triangular cells; the cross members of the truss been pinned at their middle making free their relative rotation while their extremities are pinned in the vertical members, these lasts having several row of pinning holes.

2. A device for shoring pits comprising:

25 a) at least four rail posts, said corner rail posts, arranged vertically on each corner of the pit, each rail post having two vertical channels within two perpendicular plans; each channel having stepped cross section shaping two or more steps each of them making up a vertical guide completely or partially open.

b) at least eight large shoring panels as set forth in the claim 1, each panel sliding between adjacent rail posts creating on each side of the pit a multi-step shoring wall of two or more steps.

3. A shoring device obtained as combination of the shoring devices as set forth in the claims 1 and 2.

4. A shoring device, said slide rail shoring system, wherein the connection between rail post and panel is carried out by magnetic forces engendered by magnetic flat bars incorporated either in the rail post or the panel.

5. A rail post as set forth in the claim 1, wherein the outermost and/or the innermost step guide have partial locking for the panels.

10 6. A rail post as set forth in the claim 1, wherein the length of the step guides is between $\frac{1}{2}$ and $\frac{7}{8}$ of the total length of the rail post.

15 7. A rail post as set forth in the claims 1 or 2, whereon a vertical guide is mechanically attached on its back side enabling a pair of such rail posts to slide within another pair of rail post, repetitively if necessary and analogically to telescopic concept.

8. An articulated truss as set forth in the claim 1, wherein the vertical members have lateral guide channels for sliding one or more additional shoring panels past each other.

20 9. An articulated truss as set forth in claim 1, wherein at least one spreader connects its vertical members, either at their top or mid level.

10. An articulated truss as set forth in claim 1, wherein the vertical members are equipped with rollers.

25 11. A shoring panel incorporating magnetic flat bar at their lateral ends to ensure the connections within rail post.